THE GENESEE FARMER.

Vol. VI. ROCHESTER, DECEMBER 3, 1836. No. 49.

Published by Luther Tucker.

TERMS.—The Farmer is published every Saturday, making an annual volume of 416 pages, to which is added a Title-page and Index, at the low price of $2,50, or $2,00 if payment is made at the time of subscribing.

☞ All subscribers must commence with the volume, Jan. 1, or with the half volume, July 1. No subscription taken for less than six months.

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THE GENESEE FARMER.

SATURDAY, DECEMBER 3, 1836.

Caution to Silk Growers.

An advertisement has been sent us from Northampton, (Mass.) for publication, announcing that Mr. *Whitmarsh's* agent "offers for sale the seed of the genuine Morus multicaulis, raised in France the present year." We decline publishing the advertisement, because we deem the establishment from whence it emanates unworthy the confidence of Silk growers. That those interested may know the grounds of our want of confidence in Mr. Whitmarsh and his agent, and in the fulfilment of a duty which we think we owe to those who are interesting themselves in every measure calculated to forward the Silk business in this country, we proceed to lay before our readers a statement by which they may judge for themselves of the honesty of Mr. Whitmarsh and his agent. We would, however, remark, lest some may think we are actuated by other motives than a desire to prevent imposition, that we know nothing of Mr. Whitmarsh, only by common report, which states him to be a man of great wealth, and we had, until the transaction which we are about to detail, occurred, considered him as a patriotic, public spirited individual, who was laboring to promote the public good by the introduction of the culture of Silk into our country; and further, we may state, that we have no *personal* interest in the matter, as we are neither engaged in the culture or sale of the Mulberry, and desire only to caution the public against those who may be disposed to defraud them.

In the spring of 1836, the following advertisement was published in the "Hampshire Gazette," edited by Mr. Whitmarsh's agent, and in several other journals:

CHINESE MULBERRY.

FOR SALE,

FIFTY THOUSAND TREES of the MORUS MULTICAULIS, together with a quantity of The GENUINE SEED of the Chinese Mulberry, in papers sufficient for between 3 and 4000 plants each.

THE above was purchased by Mr. WHITMARSH of this town in Europe in person, shipped the fore part of this month, and will soon be ready for delivery to order in this country. The seed was procured by Mr. Whitmarsh with great care, and is by him warranted fresh from trees in Europe of the growth of 1835. Purchasers will be sure of obtaining from this seed choice trees at a low price.

Orders for Trees or Seed addressed to the subscriber, editor of the Hampshire Gazette, postage paid, will be duly attended to.

C. P. HUNTINGTON, Agent for
S. WHITMARSH.

Northampton, March 28, 1836.

The reader should bear in mind that the *Morus multicaulis* is the only mulberry generally known in this country as the *Chinese*, and that by these terms the same plant is meant, when they are used in our agricultural journals. Consequently the advertisement was understood to say, that the plants and the seed mentioned in it were the same, both being the Chinese Mulberry or Morus multicaulis. It was so understood by us—it was so understood by Reynolds & Bateham, proprietor of the Rochester Seed Store—by Mr. Rowe, the proprietor of the Monroe Nurseries—by the Messrs. Thorburns, Seedsmen in Albany and New York, and by *every* person whom we have seen, who knew any thing about the business. Under this impression, large orders were given for the seed, as it was considered an article of very great value, and it was, if we mistake not, the first which had ever been advertised in this country. On the arrival of the seed at Northampton, no time was lost in supplying the orders, as we infer from the fact, that an agent was despatched through this section of the country with it. The agent was here on the fourth of May, and we may reasonably infer that the seed had been generally distributed by that time, for on the fourth of May the following article was published in the editorial columns of the *Hampshire Gazette*, then edited by the above named C. P. Huntington:

"THE CHINESE MULBERRY SEED which we advertised a few weeks since for Mr. Whitmarsh, has come to hand, and can be had by calling at our office at $5 per paper, containing sufficient for between three and four thousand trees. To prevent misapprehension, we would state that this is not the seed of the Multicaulis, that being a species of the Mulberry which bears very little seed, but of a kind obtained by great pains from the North of Italy on account of its better adaptation to our climate, as Mr. W. thinks, and fully equal to the Multicaulis in abundance of foliage. Its leaves are about two thirds of the size. The Silk Company intend to propagate this from seed, together with the Multicaulis from cuttings, &c. The seed is very pure and clean, and probably nearly every seed will germinate. Mr. W. brought out several varieties of Mulberry not known here, for experiment. His Multicaulis trees will be here in about a fortnight."

Here—*after the orders had been supplied*—the fact is unblushingly confessed that the seed *was not what it purported to be*—was *not* the *Morus multicaulis*, (the only Chinese Mulberry known here,) but "a kind obtained by great pains from the *North of Italy*."

Having thus shown that the seed was *not* the Chinese Mulberry by the confession of Mr. Whitmarsh's agent, we will now show how far the seed agreed in *quantity and quality* with the advertisement and the editorial article copied above, which both state that the papers, which were sold for $5, "contained sufficient for between *three and four thousand plants each.*" We have one of these $5 papers now before us, and have had the seed accurately weighed, and find it to contain just *one-sixth of an ounce*—and if we remember rightly this is the same amount which Mr. Thorburn, Seedsman of Albany, told us last spring was contained in the papers which he received.

Messrs. Reynolds & Bateham, Seedsmen of this city, received four papers, which they ordered for their customers, but which they refused to sell after being informed that the seed was not what it purported to be. They planted it, and they now inform us that the product was about *three* HUNDRED plants, instead of between *twelve and sixteen* THOUSAND, as there would have been had the statement in the advertisement proved true. They also state that they have been unable to discover any difference between the plants and those of the common White Italian Mulberry.

We are also informed by Mr. Ralph Cheney, late of Manchester, (Conn.) a gentleman who is extensively engaged in the Silk business, that he sowed two papers of Mr. Whitmarsh's seed, from which, with the greatest care and attention, he raised only about 300 trees; and that he has not been able to discover any difference between them and the common White Mulberry.

Having understood that Mr. Rowe, the proprietor of the Monroe Horticultural Garden and Nurseries, had purchased some of the seed, we addressed a letter to him, soliciting his opinion of the value of Mr. Whitmarsh's seed. His answer is so much to the point, that it needs no comment. It follows:

MR. L. TUCKER—In reply to yours, I would state that I purchased of an agent of Mr. Whitmarsh, 3 papers of seed purporting to be Chinese Mulberry, for which I paid $15. I put the seed into the best prepared soil that I had, and took the utmost pains to have it produce all that was possible, and from the 3 papers of seed I have 420 plants, *all told;* and in my opinion there was nothing but genuine White Italian Mulberry produced from the seed. I sowed a parcel of the White Italian Mulberry seed received from Mr. Comstock, of Hartford, in the *same bed*, and I could not distinguish any difference between the two parcels sown—one Mr. Whitmarsh's Chinese Mulberry, and the other the White Italian, as received from Mr. Comstock. Mr. Wilson has, through the season, since the plants unfolded their leaves, pronounced Mr. Whitmarsh's nothing different from the White Italian, such as we commonly get or buy at the seed stores.

The seed that I paid $15 for, I should think was worth to me twenty-five cents at the utmost, at the rate I paid Messrs. Reynolds & Bateham for the White Italian Mulberry by the pound.

My opinion has been, since the seed came up that I purchased for the Chinese Mulberry, that there was nothing but fraud intended, and I have wished for an opportunity like the present to express my opinion on the subject, and I think that it would be no more than an act of justice in you as a public journalist, to give to your subscribers an intimation that it might be for their interest to beware of being gulled as I have been, and also to chastise an individual that attempts to

take such a step to advance his pecuniary interests. Respectfully yours, Asa Rowe.

From the foregoing statements, we infer,

1st. That Mr. Whitmarsh, by his agent C. P. Huntington, has advertised and sold, under the name of *Chinese* Mulberry, a seed which he knew was not the *Morus multicaulis*.

2d. That, taking advantage of the desire of the public to procure the seed of the Morus multicaulis, he has sold large quantities of this spurious seed, at the enormous price of *Four Hundred and Eighty Dollars per pound*.

3d. That the seed sold was nothing more or less than the seed of the White Italian Mulberry, (or a variety of no more value,) and was worth *fifty cents an ounce*, instead of *thirty dollars the ounce*, the price at which he sold it.

With these facts before the public, we leave it for them to decide whether we have just grounds for the declaration, that we deem Mr. Whitmarsh's establishment unworthy the confidence of Silk Growers.

Brief Hints for Commencing Winter.

Cattle and all domestic animals should commence the winter in good condition.

Do not undertake to winter more cattle than you have abundant means of providing for.

Let every farmer aim to have next spring, instead of thin, bony, slab-sided, shaggy cattle, fine, smooth, round, and healthy ones, and to this end let him spare no pains; and,

Frst, let the cattle be *well fed;*

Secondly, let them be fed *regularly;*

Thirdly, let them be properly *sheltered* from the pelting storm.

Proper food and regularity of feeding will save the flesh on the animal's back, and shelter will save the fodder.

All domestic animals in considerable numbers should be divided into parcels and separated from each other in order that the weaker may not suffer from the domination of the stronger, nor the diseased from the vigorous.

Farmers who have raised root crops, (and all good farmers have doubtless done so,) should cut them up and mix them with drier food, as meal, chopped hay, straw or cornstalks, and feed them to cattle and sheep.

Cow-houses and cattle stables should be kept very clean and well littered. To allow animals to lie down in the filth which is sometimes suffered to collect in stables, is perfectly insufferable. By using plenty of straw or litter, the consequent increase in the quantity of manure, will much more than repay the supposed waste of straw.

All stables should be properly ventilated.

Mixing food is generally better than feeding cattle on one substance alone.

Cattle will generally eat straw with as much readiness as hay if it is salted copiously, which may be done by sprinkling brine over it.

A great saving is made by cutting not only straw and cornstalks, but hay also.

Sheep, as well as all other domestic animals, should have a constant supply of good water during winter. They should also be properly sheltered from the storm, for a great point in the secret of keeping them in good condition, is to keep them *comfortable*.

Fall Ploughing.

The question is sometimes asked, is it best to plough land in the fall? and if answered in the affirmative, the reasons for such a procedure are demanded. We think that fall ploughing is desirable in most cases, and on most soils, for the following, among other reasons, that might be given.

1st. It is one of the established principles of philosophical agriculture, that the soil derives much of its productive property from the air, and that chemical changes and combinations are constantly going on, by which fertility is much increased. These alterative effects of the atmosphere, and these changes of the qualities of the soil, are the more active and efficient as new surfaces are exposed to new action. For instance, much greater quantities of carbonic gas will be absorbed by a given surface of earth, if that earth is frequently stirred, than if it was allowed to remain with a single saturated surface. Ploughing, by exposing new surfaces to the action of the atmosphere, must be productive of essential benefit; and as fall ploughing generally takes place after crops which have partially exhausted the surface of some of its nutritive and absorbent qualities, its service in aid of spring crops is greatly enhanced.

2d. There is always on land more or less grass, weeds, stubble, or other vegetable matters convertible into mold by fermentation and decomposition, a process which is greatly aided by being turned under the surface of the earth. Fall ploughing renders such substances much sooner available in advancing the growth of crops, than they would be if left uncovered during the winter; independent of the great loss necessarily sustained by the washing away of the lighter materials and their dispersion by the winds.

3d. Nothing acts more efficiently on moist soils in promoting vegetation, than high pulverization; and fall ploughing aids this operation most essentially. Lands that if ploughed in the spring only will remain in large cakes or lumps, defying the efforts of the farmer to reduce them suitably, will if ploughed in the fall be found loosened in texture, and fitted for early operations in the spring of the year. Frost is the most efficient disintegrator of the soil with which the agriculturist is acquainted, and he should avail himself of its valuable labors in all practicable cases.

4th. The earlier the ground can be prepared for the suitable reception of spring crops, such as corn, spring wheat, and barley, the better it will be found for the cultivator; and in nine cases out of ten, early sown crops are the heaviest, and most productive. The present year vast quantities of oats were caught by the snow storms of October, and if saved at all, it was by a loss in the grain, and an additional expense in the harvesting, which nearly destroyed all the profits of the crop, a result which could not have happened had fall ploughing prepared the earth for the early reception of the seed. It is true, much of the late harvesting by which our farmers have suffered so much, was the result of sowing after winter killed grain; but it was far from being universally the case, and farmers should never willingly submit themselves to such adverse chances.

5th. Ploughing land acts more effectually in destroying insects than any other mode of treatment, and fall ploughing for this purpose is preferable to any other. Those insects which produce the most mischief to the farmer, such as the fly, cut worm, grub, &c. cannot resist the frost of our winters, if prematurely exposed to its action by a fall ploughing. The cut worm, which accumulates in such numbers in old meadows and pastures, is thus destroyed, and crops planted on them saved.

Lastly—Our summers are so limited in duration, that unless the time alloted to vegetation is fully occupied by the growth and ripening of plants, the certain failure of crops may be anticipated. Hence the farmer usually is more hurried by his work in the spring than he ought to be, in order to avoid having his crops caught by the frost and snow. It should be the object of the farmer to have his necessary labor as nearly equalized through the season as possible, and thus avoid all pressures at inconvenient seasons of the year. Experience shows that the farmer in most cases, has more leisure hours in the fall of the year than at any other time, and he who would work it right, should employ this time in advancing his next spring's work, for such fall ploughing emphatically is, and thus preventing the pressure of business then usually felt.

These reasons we think sufficient to justify the practice of fall ploughing; and unless in cases where the deep silicious or porous nature of the soil seems to forbid its use, we cannot doubt that our farmers will find their account in adopting the practice. If any however are doubtful on the subject, they can easily bring the matter to the test of experiment, and govern themselves accordingly. G.

☞ Will not "An Old Farmer," whose communication we publish to-day, favor us with some of the details of his long experience as a farmer.

Study of Agriculture.

We continue our extracts from the excellent Address of Mr. Nelson, delivered before the Middlesex (Mass.) Agricultural Society, at its anniversary in October last:

I have assumed that great advantage and profit would arise from the study of agriculture as a science, and I think no one can doubt it who beholds what has been done, and what is now doing in this matter, and if he brings in review but a few of those improvements that have sprung from such a study.

Amongst the most important of these, the introduction of green crops instead of fallows, may be reckoned the most splendid. Fallow crops were useful; they did much towards renovating land which had been worn out by too long tillage:—they materially assisted in increasing the amount of produce. But green crops are still better; they increase the productiveness of the land in a greater degree, and they never let the land lie at rest, but are constantly producing. There is no mistake about the matter; the land not only never lies at rest, but constantly grows richer. Besides, it is not only land already productive that is thus enriched, but sandy plains, literally sandy plains, have been converted into highly productive arable land, by the aid of a proper succession of green crops. In this way these plains have been made to produce luxuriant crops of wheat, rye and barley; while in light loamy soils the crops of corn have been more than trebled. A vast supply of the most valuable manure is likewise produced, as well as increased quantities of green fodder for the feeding of cattle and sheep. It has been

truly said, that the introduction of this system has done for agriculture, what has been done for manufactures by the steam engine and spinning frail.

The old system of cropping, however, is still retained, notwithstanding the immense advantages of this new method. We go on working very hard, and cultivating a great deal of land, to provide fodder for our stock during a long and dreary winter. The old way is to raise clover, herds grass, and red top: these three, the greatest part of which is clover. As a general rule in this part of the country, our farmers are satisfied if they raise, on an average, two tons of hay to the acre. Sometimes we get more, but very frequently less. Now this is far from being the full amount a properly cultivated acre is capable of producing, even of hay; and if planted with some kind of vegetables, hardly an iota of what may be obtained. Fifty tons of Rutabaga have frequently been raised from a single acre. Considering this an extra crop, and taking 25 tons as a medium result, we have about 800 bushels of food, from an acre which would not have produced more than three tons of clover hay at the very best. Cattle of all kinds like this food in winter: it is very nutricious: it is green, succulent, and supplies the want of green grass and green herbage. It is heavy, distends the stomach, keeps the stock in good health, and saves a great amount of hay. Yet with all these advantages attending its cultere, how few persons enter upon it with any spirit, or with a system based upon calculation! The Cabbage, likewise, although not so nutricious as the Rutabaga, is eaten with great avidity by cattle, and yields a great amount. According to the Editor of the Baltimore Farmer and Gardener, 10,000 heads will stand upon a single acre, yielding in weight 40 tons. There is a chance of obtaining this amount of excellent fodder from one acre, and yet who ever tries for this chance? A man who in the country should put into cultivation with cabbages, for the sake of fodder, but two acres, would stand a fair chance of being placed under guardianship by his old fashioned neighbors. And again, the cultivation of the common flat turnip has been but little attended to by us, though extensively cultivated in Europe. Every one sows a little patch: a corner of the garden: or a piece in the cornfield; or the cowyard. No man ever thinks of putting in an acre or two, although all know the profit of this vegetable: all know how beneficial it is to milch cows and all kinds of stock. By accurate chemical analysis, 15 tons of turnips which any body can raise on an acre, contain more nutritious matter than three tons of clover, or five of meadow hay. Besides it is not unfrequent to get 25 to 30 tons from a single acre:—that is to say, more than 6 tons of clover, or 10 tons of meadow hay. This has been done many times, and of course can be done again. Moreover, the turnip culture enriches the soil; it is the main spoke in the green crop system, and does more than any thing else to render light loamy soils highly productive; and, as I have before stated, by the assistance of marl or lime, has reclaimed and made productive, sandy plains. Now these are facts, undeniable facts; the results of experiment, of scientific farming, in many and various regions. And I ask, why is it that we have not learned from all these things? Why is it that we have not done likewise?

Of stock husbandry, which has been much improved of late years, I have only time to say that the English nation is far ahead of ours in this matter; and that we may know how much we have to do, and what we can do, from the fact that, in England, since 1763, the stock of cattle has just doubled in size, good order, and value.

Of Furrow drainage, another most important improvement in farming, which has been made in England, but which has not yet reached this country, I can only now say that it has not been made very lately, and has spread with such unexampled rapidity, on account of its usefulness, that in a single district in England, in which many millions of drain tiles are manufactured yearly —the supply is not equal to the demand. And although it is attended with some considerable expense, tenants are by it enabled to meet that expense, and to pay a rent considerably increased.

"But, says an English publication, of all the recent improvements in agriculture, the introduction and general use of bone manure is the most important. It is further stated that its influence has been all but miraculous. Crops have been increased four and five fold, by a single thorough dressing, the permanent effects of which, have greatly increased all succeeding crops. It is found that no other manure is so useful, or so permanent in its effects. And this is not theory; it is the testimony of distinguished men, of practical farmers, who have specially investigated the matter, and who are well and practically acquainted with all the circumstances. So great is the confidence in this manure in England, or rather so great and miraculous are its effects, for there is no doubt on the matter, it has been so much investigated, that not only have bone mills been erected for the purposes of better preparation, but shiploads of bones have been imported into England from other countries. And it is a singular circumstance, that the bones of those who fell on the field of Waterloo, have been carried to England, and used as a manure in the production of the necessaries of life; thus becoming more useful after, than they were in their death.

I have thus, gentlemen, stated some reasons why you should prosecute agriculture as a science, and have thus briefly noticed some of the modern improvements in that science, in order to induce in your minds the question "Why may we not accomplish what others have accomplished?" And I ask the question—why may you not? Who shall say that an American cannot do as much as an English farmer? Who but the American himself, when he says that he cares not for the science or study of agriculture, and that he spurns such learned words? He who adheres to old customs while every body about is adopting newer and better, will fall far behind the age. And that farmer who continues to farm as did his ancestors, who entertains a sovereign contempt for scientific cultivation, will find himself every day growing poorer and poorer, because his more enlightened neighbors are every day growing richer and richer. I know that to treat farming as a science, to adopt the late improvements, or at least many of them, calls for a considerable outlay of money. But the investment is sure; the returns must be enormous for the amount expended; and they will themselves furnish the means of further improvement. There are multitudes of examples of what may be done in this way. Mr. Coke, of Norfolk, England, furnishes the most illustrious instance. Some forty years ago he inhabited a vast landed estate, the income of which was then, $8000 per annum. Being an active and intelligent man, he introduced the Tullicm system, which consists in a frequent rotation of creps, and in sowing in drills, and in his life time, by the plough and a proper succession of plants alone, he increased the income of his estate to $200,000; or in other words, he increased its value 24 times. Of him it was said, that "he disdained to hide his head beneath a coronet." Something like this every man may do. If we have not thousands to double every few years, we have hundreds or tens; and the smaller the sum, the more the need of this result. The means are in every man's hands. There is no necromancy in the case; no peculiar skill is needed. Diligently use the faculties God has given us, and the advantages which our institutions secure, and the whole is accomplished.

We in New England have already done much. Our hills are rough and rocky and sterile; our winters are long and tempestuous; our climate is inclement and unfavorable; but our arms have been nervous and our hearts strong, and the rough sterile fields have become gardens. The lines fell in rough spots to our fathers but they have been made very pleasant homes. The founders of New England had difficulties to contend against, but they have been overcome. Just two hundred years ago, in 1636, a gentleman writing to England of the soil of this country says "after five or six years it grows barren beyond belief; and, whereas after, the land in England proves fertile for grass, this yields none at all, but like the land about Dunstable, puts on the face of winter in the time of summer." * * "For the present we make a shift to live—but hereafter, when our numbers do increase, and the fertility of the soil doth decrease, if God discovers not means to enrich the land, what shall become of us I will not determine—but it is probable we must either disband ourselves, like beasts straitened in their pasture, and so be liable to destruction from the natives, (I mean the Pequods,) or else continuing together, be made the subject of some fearful famine, and the misery that accompanieth it." How great the change? Two hundred years ago, the 10,000 inhabitants of New England feared a famine! Now more than two and a half millions are supported in the same country, and the energies of the land are not developed to the hundredth part! We apprehend no famine now: we fear not the sterility of the soil: we war not with the Pequods: our midnight slumbers are not disturbed by the howlings of ravenous wild beasts. Peace, prosperity, and plenty is in our land. The little handful has grown to a mighty host. Our efforts have been prospered, and the earth has smiled. And now instead of fears for the issue, and prayers for succour, we confidently anticipate the time when in agriculture, as in every thing else, we shall stand pre-eminent before the whole world. Truly may we say there has been a change!! And shall it stop? Or shall it go on? Shall we rest satisfied with what has been done, now that our energies are just beginning to be developed, and now that we have inducements greater than ever to press onward? By you, Gentlemen, and such as you, is the question to be solved. By directing to the science, the same mental power that you devote to any thing else, and the same unwearied diligence, every thing desirable will be attained.—True, we have not the great staples, the sunny clime, the fertile soil of the south; but we have not slavery. True, we have not the luxuriant prairies and mighty rivers of the west; but we have what is wanting in those places, the good old fashioned New England habits of economy and industry. We have not the blessings of many other lands: but at the same time we have not the curses that are entailed upon them. We have every thing that is needed to induce our surpassing all other lands in this science; and it rests with you, Gentlemen, and your fellow workers in this cause, to say whether or not these results shall be attained.

Note.—The facts stated in the foregoing discourse, I have obtained from different sources, troubling myself only about the accuracy of what I have stated. In one or two instances I have not only borrowed facts, but expressions.

It has been with great pleasure that I have learned several instances of the successful use of bone manure, by gentlemen living within this county. The statement of English farmers have been abundantly confirmed, its effects having been all but miraculous.

Patent Butter.

A Russian nobleman of high rank, and the possessor of a large landed estate, has received from the Emperor, letters patent, as a reward for discovering a new method of making butter, which may be of importance to dairy women in this country. The process consists in boiling, or rather simmering the milk, for the space of fifteen minutes, in its sweet state, taking care not to burn it, and then churning it in the usual manner. It is said no difficulty ever occurs in making butter immediately, and of a quality far superior to that made from milk which has undergone vinous fermentation. Butter made in this manner, is also said to preserve its flavor and sweetness much longer than that made in the ordinary manner. The milk, likewise, being left sweet, is considered of nearly the same value as before churning, and far more healthy, on account of its having the animalculæ, or whatever else it may have contained, destroyed. The ease with which the experiment may be made, should induce all to give it a fair trial.—*Silk Culturist.*

COMMUNICATIONS.

Great Snow of October 5th, 1836.

BY W. G.

Storms, either of snow, wind, or rain, which by their severity, duration, or extension, excite general attention, serve as landmarks in the science of meteorology, and go far to establish the general principles which govern such mutations of the weather and seasons. This is more certainly the case, when the storms are of a kind not belonging to the season, and may be looked upon as deviations from the usual course of atmospheric changes. Such was the snow storm of October 5th, which in severity and extension is wholly without a parallel in the history of our country. We have been at some pains in collecting some of the facts relating to it, in different parts of our country, and can only express our regret that we have not the means of making it more complete.

Great advantages would result to science if the editors of newspapers in all sections of the country, when noticing events of general interest, would be more particular in their statements, and full in their details. For instance, we have before us journals from various and remote sections of the Union, in which the storm of the 5th was noticed by the editors. They in general merely state its kind, whether of rain or snow; but the time of its commencement, the direction of the wind during its continuance, and the time of its cessation, are not often mentioned. These things in all such cases are very desirable, and if attended to would, by the mass of facts that would be thus accumulated, lead to important results. Newspapers, if properly conducted, would be the telegraphs of science, the avant couriers in all the departments of useful knowledge; now they are too frequently the mere ministers of a corrupt and vitiated public taste in polite literature, and vehicles of party political slander.

It is believed that Dr. Franklin was the first to advance the idea, that storms always commence first in the quarter opposite to the prevailing current of air; or in other words, that a north-east storm begins in the south-west, and vice versa. This opinion is unquestionably correct, where the current of wind sets for some hours in one direction, as is usually the case in our great storms from the north or south, though it is not always observed where sudden storms arise, occasioned by local rarefactions or condensations of the atmosphere. The south-east gales which blow with such violence in our country at the equinoxes, are always felt sooner at Boston than at New York, and commence earlier at the latter place than at Baltimore; and it frequently requires twenty-four hours or more, for a gale to retrograde, as it were, in this way, from Boston to the Gulf of Mexico. An attentive observation of dates would show, that in this respect, as in most others where the theory depended on a correct deduction from his own common sense, but profound interrogations of nature, the philosophy of Franklin was right; and the snow storm of October 5th will not have a tendency to impeach his reasoning.

The winds from the north and the north-east, during the present season, whatever may have been the cause, have been much colder than usual. Whenever the current of air set from those quarters, the thermometer sunk as rapidly as if in the immediate vicinity of an ice mountain, and its chilling effect was felt by vegetation of every kind. Snow early showed itself in many parts of the country, and where this did not reach, hard frosts and cold rains were the substitutes. For two or three days preceding the 4th, the weather had been fair, but cold, with winds northwardly. On the 4th it rained at intervals during the day, but cleared away about 4 o'clock, wind W. of N. The snow commenced falling between 3 and 4 o'clock on the morning of the 5th, and continued to fall rapidly until 10 or 11 in the evening. None fell during the 6th, though the weather was cloudy. The depth of snow on the morning of the 6th did not vary much from two feet, but it decreased rapidly. These remarks will be understood as applying to appearances at the residence of the writer in the southern part of Onondaga county, some five or six hundred feet above the Otisco lake, at a distance of two a half miles, and about a thousand feet above the Erie canal at Syracuse, and the level country of the Seneca and Oneida rivers. The quantity which fell was nearly the same through the whole range of high land from Utica to Chatauque county.

In Oneida, Madison, and Onondaga counties, it began to snow from 3 to 4 o'clock Wednesday morning; at Lima, Ontario county, at 8 o'clock, and in the south part of Orleans county at 10 o'clock the same morning. On the south margin of Lake Ontario no snow fell—all was there rain; but in proceeding from the lake south, snow was soon found, and it continued to increase until the line that divides the waters of the Susquehanna from those of the lakes was reached. This shows that the northern current of air not only was charged with vapor in passing over the Ontario, but that its temperature was raised by the same process. To the condensation produced when these masses of vapor came in contact with the hills to the south, caused by their lower temperature, may be attributed the greater quantity of snow which fell in the range of this aerial current, than farther to the east, where the influence of the lake was not felt. On the highlands of New Hampshire, Vermont, and the county of Berkshire, in Mass. snow fell on Wednesday, but not in such quantities as in West New York. At Worcester it only rained. At New York there was only rain—the snow storm did not cross the highlands. The whole range of the Alleganies were covered as far south as the south line of Virginia; in Loudon county in that state, the snow was 5 inches deep; and on Tuesday morning some snow was observed at Yorkville, South Carolina. Farther south in Georgia and Alabama, the only indications of the snow at the north were severe frosts, which materially injured the later crops of cotton. At Hollidaysburg, where the Pennsylvania canal and railroad crosses the Allegany ridge, the snow was 26 inches deep, and the cars were obstructed in their passage. At Wheeling on the Ohio the rain and snow began to fall on the 4th, changing on the 5th to snow alone. This is the only instance we have noticed in which snow fell on Tuesday. At Maunch Chunk it began Tuesday evening, and on Broad Mountain was 15 inches deep on Wednesday. In Maryland it began Tuesday evening, and continued till Wednesday forenoon, when it was 10 inches deep on the Sideling Hills. In no instance have we heard of snow's falling on the 6th, except near the head waters of the Allegany, and in Cattaraugus and Allegany counties in this state, where it snowed with violence a considerable part of the day.

As usual in our north and north-east storms, the gale on the coast was severe, and during the greater part of its continuance blew from the E. and N. E., making sad work with shipping, and causing great loss of property and lives. It would seem as if storms that in the interior of New York come from the N. E. and N., commence in the E., become deflected to the south-west by the valley of the St. Lawrence, and finally to the south by the Allegany ranges in the interior; thus making an immense sweep to the west, south-west, and south. In such storms it is a well known fact, that on the coast, the wind continues to blow from the east long after it is felt in all its violence in the interior directly from the north. It may be remarked that the snow of the 5th, in its progress and in its greatest quantity, occupied nearly the same ground of the great snow storm of last January.

One remarkable trait of the storm of the 5th, was the effect it produced on fruit trees, and woodlands generally. On orchards and fruit trees of other kinds, the damage in West New York was immense. The snow fell very rapidly and quite damp, and the trees covered with foliage were soon loaded with a weight which they were unable to support. In the native forests we saw trees stripped from the top to the bottom of their branches, almost as cleanly as could have been done by the axe, and it will be years before the orchards lose all traces of its ravages. After the storm we noticed some curious facts respecting its operations at different heights. On the immediate margin of the cluster of small lakes that reach from the Oneida to the Canandaigua, comparatively little damage was done to the trees, the water in the lakes raising the temperature of the air so much, that the snow melted mostly as it fell. At the height of 200 to 400 feet it was still wet and damp, but only enough to load and lie well; consequently at this height the greatest damage was done. At greater elevations the air was so cold, and the snow so dry, that at times it blustered as in the winter, and the greater part was at times driven from the trees, and their branches mostly saved. W. G.

Burning Coal Pits.

Mr. Tucker—Considering your paper as a medium through which a practical farmer may gain much useful information, I venture to ask through its columns, for a more minute and plain description of Truth Teller's manner of burning wood coal, which I read in your paper, No. 46, Nov. 12th, 1836, headed "Important to Blacksmiths." I must confess that I was pleased with the new discovery which Truth Teller has made, and think it to be a great saving of time, labor, and coal. Still, I should like to ask Truth Teller some questions, which I cannot solve. And first, will not straw answer as good a purpose as

leaves, to cover the pit or kiln with? If not, why? Secondly—How thick is it necessary to cover the pit with tan bark? Is it necessary to keep the bark wet while burning? Will not the pit want feeding? Will there be no sink in the pit? Will the bark answer to dust the pit with while raking out the coal? Will not the bark burn up? Lastly—Is it necessary to give the pit or kiln vent all around at the bottom, by keeping a continued space open? If Truth Teller will please to give a practical reader of your paper this information through it columns, he will very much oblige ONE INTERESTED.

☞ The article to which the above alludes, was copied from the "Truth Teller," and not written, as the writer seems to suppose, for the Farmer. Perhaps, however, some of the readers of this paper can answer his inquiries.

Wheat turning into Chess.

BY AN OLD FARMER.

MR. EDITOR—As this subject has been called up again, I feel disposed to give you two or three facts. As to scientific attainments I make no pretence, but in practical farming I have had some experience from my youth up. I have been accustomed to hear my neighbors complain of their wheat turning to chess—this however has never alarmed me, for I could easily account for it by their sowing bad seed. I remember when I was a boy, there was much dispute on the subject, and many were so confident wheat would turn to chess where winter-killed, that my father tried the experiment of sowing clean seed in the most exposed situation, in which wheat could be expected to grow, and only three plants escaped the winter—these all produced wheat, and no chess was found near the spot.

Believing that "what a man sows, that shall he also reap," I have been particular to so clean seed, and I do not call that clean seed which "contains fifteen hundred or two thousand grains of chess to the bushels." In examining my seed, if I find one grain of chess to four or five handfuls of wheat, I clean it out, or lay it aside and procure that which is better; in this way I am not often troubled with chess, except sometimes sowing where others had previously tilled the land, and left it foul.

I will however mention two instances, in which chess has been produced in a singular manner. The first was something more than thirty years ago, on a small patch of land, say half an acre, which had been newly cleared off, two crops only having been grown on it, viz: one of turneps and one of corn, immediately after which it was sown to wheat, with clean seed, and produced a good crop—clean of course. The following spring wheat had come up on this patch without ploughing or sowing, and at the season of planting corn it looked so promising for a crop, that it was left to grow; and it looked flourishing till about earing time, when walking by it one day, I beheld it was all chess, just headed out—there was no wheat among it. I was exceedingly at a loss how to account for this fact, and am still unsatisfied in my own mind. There could not be chess in the ground, because it had never been cropped, and it could not be scattered from the wheat crop, because there was none discovered in the wheat. But I will proceed to the second instance.

About five years since, a neighbor's horse broke into my wheat field, a few days before the ears of wheat began to appear, and as he walked through the field, bit off mouthfuls of wheat. Happening to walk across his track one day, say three or four weeks after this, I perceived that where the horse had bitten off a stalk of wheat, it was headed out chess. This surprised me, and excited my curiosity; I was therefore led to examine somewhat critically into this singular production. I found that the stalks still retained the appearance of wheat from the ground up to where they were bitten off—from that point a short stem proceeded, pretty thickly loaded with chess, the height being little more than half that of wheat. I now followed the track of the horse some distance, and found several more stalks that had been bitten, and which presented a similar appearance; the stalks that had been bitten off were easily distinguished, and where bitten so low as to take off the ear were uniformly chess, so far as I examined. Some that were slightly bitten had headed out and were wheat. Still, after examining these bitten places minutely, to the number of four or five in the whole, and finding chess on all of them, I then examined the field at large, and it was difficult to find chess in any part of the field. There was a few fine spires to be found, with very little chess on them, and differing very much in appearance from those spots where the horse had bitten off the wheat. It does seem pretty evident that wheat did turn to chess in this instance at least. I consider it the strongest case of the kind that has fallen under my observation; but it ought to be observed, that when the regular operation of nature is obstructed, singular results often occur. In the case under consideration, the plant was mutilated, and the regular course of nature disturbed in one of the most critical stages of the whole process, and the result is an anomaly in the vegetable kingdom. Whether this ought to lead us to doubt of the propriety of arranging wheat and chess under two distinct genera, or to consider them different species of the same genus, I shall leave the naturalist to decide. It is an isolated fact if ever so thoroughly established, and it is not my object to overthrow botanical science, or to correct the errors into which botanists may have fallen. I would remark, that my confidence in the utility and importance of sowing clean seed is not in the least shaken, and from more than fifty years' experience I can assure your readers, that if they will till their land properly, sow only clean seed, and keep horses and cattle out of their fields, their wheat will not turn to chess. Wheat never turns to chess by a regular unobstructed process of nature.

November, 1836. AN OLD FARMER.

Peach Trees.

A correspondent of the New-York Farmer says that a cultivator of peach trees in Pennsylvania, preserves them in a bearing condition until they are ten or twelve years old by the following very simple mode of treatment. From the second year of the growth of the tree, he seeks for traces of the gum, which he considers a sure indication of worms beneath. This he removes so as to expose the aperture into the body of the tree, and then fills it with quick lime. He repeats this operation every month, examining the roots as well as the body. The short life of the peach tree, and their liability to be destroyed by worms, has discouraged most farmers from attempting to cultivate this delicious fruit; but if their lives can be prolonged and effectually secured against the attacks of the worm thus easily, we have no doubt our markets will be fully supplied, and at reasonable prices.—*Silk Culturist.*

Dutchess County Farms.

Few farms in this country are better cultivated, or more highly productive, than those of Dutchess County, New York. Possessing a virgin soil of more than ordinary fertility, and the aid of an improved and ameliorating course of husbandry, their products of wheat, wool, beef, &c., have acquired for the county, the character of being one of the best agricultural districts in the United States. Wheat was formerly the staple production, and while the attention of farmers was devoted principally to its cultivation, their prosperity became proverbial among wheat growers in other parts of the country. The subsequent introduction of wool growing was the commencement of a new era in their prosperity—for while it left the wheat crop undiminished, it opened a new avenue to the fountain of wealth, and soon elevated them to easy, and many of them to independent, circumstances. The recent introduction of the culture of silk, forms another prominent and prosperous event in their rural economy.—This, also, instead of diminishing the wheat and wool crops, is merely drawing from the reservoir by another channel. The same may also be said of the cultivation of the beet, and its manufacture into sugar, which is beginning to attract attention.

With all these advantages for the acquisition of wealth, it is difficult to see how the farmers of Dutchess county, distinguished as they are for enterprize, industry and economy, could have avoided being the beneficiaries of mammon, without destroying the established laws of cause and effect. That they have been his peculiar favorites is evident from the fact, that they are among the most wealthy farmers in this or any other country. It is also equally inexplicable to us, why farmers, in circumstances so favorable to the enjoyment of every comfort, convenience, and even luxury, which this world affords, should indulge discontent, and a desire to abandon the home of their childhood—tear asunder the ties of consanguinity and affinity, which bind them together as brethren and families, and cut loose from the social, moral, and religious circles with which they are connected, for the purpose of spending the remnant of their days in the gloomy forests, or the lonely prairies of the west. But such seems to be the fact, and the object they have in view, in making this immense sacrifice, is equally astonishing—it is the accumulation of wealth. Has their prosperity infatuated them? Do they expect to satiate the cravings of avarice, or silence his clamor by indulgence? As well might they expect to remove the mountains of Catskill, and reverse the current of the Hudson.

That the western mania is prevailing to some extent among the farmers of Dutchess county, is evident from the unusual number of farms which are in market. The Poughkeepsie papers contain advertisements, offering for sale many valuable farms, in the several towns in the county; and it is fair to infer that their owners are desirous of disposing of them, for the purpose of exchanging their locations. That they would exchange them for any lands within their knowledge, we do not believe, and consequently are driven to the conclusion, that they are looking to the fairy regions of the west, in all the bright imaginings of a terrestrial paradise. If such is their determination, all we could say would not dissuade them from prosecuting it—for when reason yields the reins to imagination, and permits her to usurp the throne or judgment, neither the teachings of common sense, nor the expostulation of friends, will shake, and much less, revoke her decisions. To such farmers, therefore, as are determined to try the experiment, we have nothing to say; but to such as are rational, and de-

sirous of purchasing good farms, we would say that those offered for sale in Dutchess county, no doubt, afford rare opportunities for agricultural investments. The prices at which they are held, may appear to be high, compared with lands in other sections of the country; but when the locations, crops, facilities for market, &c., &c., are taken into account, they will be found to be worth all they are selling for. One word to our emigrating friends. You will find multitudes in the far west, who would gladly exchange their uncleared forests, and unbroken prairies, for the highly cultivated fields, bending orchards, and beautiful gardens of old Dutchess.—*Silk Culturist.*

Liquid Manure.

Water, in its purest state, when it has been distilled or filtered through sand, still retains somewhat of the food of plants. Its component parts, oxygen and hydrogen, under certain circumstances, are seized by vegetables while in their growing state, and converted into the products which forms the constituents of all plants. But pure water forms a comparatively meagre diet for plants. It may support life in vegetables, and some plants with no other nourishment than that which is afforded by pure water and air. But when water is impregnated with certain salts and gases, particularly such as are evolved during the fermentation of vegetable and animal substances, it becomes what is called *liquid manure.* Urine, or the stale of animals, is water holding in solution certain salts and other substances, which constitute food for plants.

It is, therefore, very important that the floor under a cow house or cattle stall should be kept very tight, so that none of the stale may be lost, which, when mixed with other substances, is very valuable as manure. A farmer, said Dr. Deane, would be no more blame worthy for throwing away the dung than the urine of beasts, which contains abundance of fertilizing salt, and oils. But if it be suffered to run through the floor, it is entirely lost.

The stale should be conveyed through the floor into the cellar, or if there be none let it pass, in constructed channels, through the sides to the dung heap, or stercorary. Few cultivators appear to properly appreciate the value of liquid manure, and of course the advantages which result from making arrangements for saving and making the most of it. We have frequently attempted to impress on our readers the importance of this attention; and particularly in the N. E. Farmer, vol. 1, p. 130. As many of our subscribers are not in possession of that number, we will reprint a passage or two from the page referred to:

"According to some writers and practical farmers, the value of the urine of cattle, if properly preserved and applied, is greater than that of all the dung which the same animals would yield! A letter from Charles Alexander, near Preples, in Scotland, to Sir John Sinclair, coniains much valuable information on this subject. "This intelligent farmer had long been impressed with the great importance of the urine of cattle as a manure, and set about to discover, by a long and well conducted series of experiments, the best method of collecting and applying it. He began by digging a pit contiguous to the feeding stall, but distinct altogether from that which was appropriated for the reception of the dung. The dimensions of the pit, according to his own account, were thirty-six feet square and four feet deep, surrounded on all sides by a wall; and the solid contents were one hundred and ninety-two yards. Having selected the nearest spot where he could find loamy earth, and this he always took from the surface of some field under cultivation, he proceeded to fill it; and found that with three men and two horses he could easily accomplish twenty-eight cubic yards per day; and the whole expense of transporting the earth did not exeeed four pounds sixteen shilling, [about twenty-two dollars.] When the work was complete, he leveled the surface of the heap in a line with the sewer which conducted the urine from the interior of the building, on purpose that it might be distributed with regularity, and might saturate the whole from top to bottom. The quantity to be conveyed to it he estimated at about eight hundred gallons; but as this estimation was founded partly on conjecture, for he measured not the liquor, it will be better and more instructive to furnish and proceed on DATA that are certain and incontrovertible. The liquid manure was supplied by fourteen cattle, weighing about thirty-four stone [four hundred and seventy-six pounds] each, and kept there for five months on fodder and turneps. The contents of the pit produced two hundred and eighty-eight loads, allowing two cubic yards to be taken out in three carts: and he spread forty of these on each acre, so that his urine in five months, and from fourteen cattle, produced a compost sufficient for the fertilization of seven acres of land. He states, farther, that he had tried the experiment for ten years, and had indiscriminately used in the same field, either the rotted cow dung or the saturated earth; and in all stages of the crop he had never been able to find any perceptible difference. But what is still more wonderful, he found his compost lasted in its effects as many years as his best putrescent manures; and he therefore boldly avers, that a load of each is of equivalent value."—*N. E. Farmer.*

Interesting to Silk Raisers.

The subscriber last spring planted a small field with the Morus multicaulis, or new Chinese mulberry, raised from cuttings of one bud each, say about three inches long, and observing that the trees had grown much larger than he expected, and had also thrown out many side branches, and that the growth was, in every particular, so much larger than was anticipated, he thought a plain statement of facts relative to them, and their culture, might prove encouraging to silk growers, and acceptable to the subscribers of the Farmer and Gardener. He invited his friend E. P. Roberts to ride over to the nursery, to see and assist in weighing some of said trees, which he did on the first inst., and in his presence three trees were taken up and weighed, the weight of which was 6 3 8 pounds, the average height above ground was 6 1 4 feet. On measuring a square rood, where those trees stood, the subscriber counted 84 trees, all 5 feet high and upward. On separating the leaves from the above three trees, the produce was 2½ lbs.; now if we say 2 1-4 lbs. for every three trees, as a portion of them were of a smaller size than those weighed, it will give to each square rood 63 lbs., or per acre 10,080 pounds of leaves the first season from cuttings—and a large portion of these leaves were produced in time for raising the second crop of worms. The land on which this crop of trees was raised, is a mellow loam on a clay bottom, from which, in 1835, it was estimated that I cut two tons of hay to the acre, and was manured last spring with about 22 horse cart loads of barn yard manure to the acre. Planted in rows 4 feet apart, and 9 inches in the row. ROBERT SINCLAIR.

Remarks by the Editor of the Farmer & Gardener.

We were delighted at the luxuriant growth of the *Morus multicaulis* plants mentioned in the communication of friend Sinclair, as well as with their very great yield of foliage. It has satisfied us that much of the objection which has heretofore rested in the minds of those who would reap ere they have sown, against the mulberry culture, may be obviated if the *Morus multicaulis* be selected for the orchard. All the calculations in our manual are based upon the supposition that the mulberry trees should be four years old before they are *picked*,—and in all candor we must confess that we are still of the opinion, that they ought to grow that long before they are deprived of their foliage; for we conceive that defoliation at an earlier period would tend to shorten the life of the plant. But those who are desirous of reaping all themselves, and leaving nothing for posterity, may, if they please, reap the fruits of their labor in the mulberry culture, even from the first year upwards,—and now let us see what the product of an acre of ground planted in Morus multicaulis trees one year old, equal in quality with those of friend Sinclair's, would yield.

He fixes the quantity of leaves at 10,080 lbs. and as 1,000 lbs. will feed 20,000 silk worms during their working season, so will 10,080 lbs. feed 201,600 worms, and as 3,000 worms will make a pound of silk, so will the aggregate number make 67 1-5 lbs. of silk, which at $4 per pound will bring $283 40—the expense of attending an acre in the silk culture, according to our computation, $150 20; this being taken from the gross amount leaves $129 20 as the profits on an acre the first year; and we fain would ask,—what can be put in an acre that will yield so handsome a profit?

The estimated expense of attending an acre in the mulberry and silk culture, as assumed by us, we have always considered large, and think so still; but we purposely made it so, in order that we might, in its *excess*, cover all possible contingencies. From some little experience of the last year, we sincerely believe that the expense of gathering leaves and feeding the worms might be lessened 33 1-3 per cent., by judicious management, and we are certain that in proportion to the extent of an establishment would the expense be reduced.—*Far. & Gar.*

Principles of Vegetation.

As every thing which appertains to the production of so important a staple as wheat, must always be of profound concern to the farming interest, we insert the following from a British paper, under the confident belief that it will elicit attention from every enlightened mind engaged in the pursuits of husbandry. The principles assumed, and facts set forth, will be novel to many of our readers, and will, we hope, set on foot a spirit of inquiry calculated to promote the great interest whose province it is to provide the staff of life for home and foreign consumption.—*Far. & Gar.*

Principles of Vegetation—Wheat.—At the British Association in Bristol, Mr. O. Webb Hall read a communication "On the Acceleration of the Growth of Wheat." He called the attention of the meeting to a statement of facts by which it would be seen that the usual period allotted to the occupation of the ground for a crop of wheat might be very materially abridged. At an average this might be estimated at 10 months, though 12 and even 13 were not unusual, and 8 might be considered as the shortest period for the ordinary winter wheat. By a selection of particular seed, and a choice of peculiar situation, wheat sown early in March has been, on different occasions, ripened before the middle of August, a period scarcely exceeding 5 months. Mr. Hall considered it an unquestionable law of vegetation, that the offspring of a plant of early maturity seeks to become so likewise, even when placed in unpropitious circumstances, and that it recedes with reluctance from the condition of its parent. Hence the seed of a crop which has been ripened in 5 months has a better prospect of producing another crop equally accelerated, than that from a crop which has been longer in ripening. He also asserted, that the acceleration of a crop was farther promoted by thick sowing, which likewise might be considered advantageous in checking and stopping the mildew.

Dr. Richardson referred to the remark of Humbolt, that in South America the wheat crop was ripened in ninety days from the period of sowing, and stated, that about Hudson's Bay this period was only seventy days. He suggested the probable advantages that might arise from importing seed from the latter country for the purpose of furthering Mr. Hall's views; but this gentleman stated, that he had found that seed imported from a distance, (and he had tried some from Italy,) was liable to become diseased. As connected with the subject of the acceleration of the growth of seeds, Professor Henslow mentioned results of experiments which he had tried upon seeds of a species of Acacia, sent by Sir John Herschell from the Cape of Good Hope, with directions that they should be steeped in boiling water before they were sown. Some of these were kept at the boiling temperature of 9, 7 and 15

minutes respectively, and had yet germinated very readily in the open border; while those which had not been steeped did not vegetate. It was suggested that these facts might lead to beneficial results, by showing agriculturists that they may possibly be able to steep various seeds in water sufficiently heated to destroy certain fungi or insects known to be destructive to them, without injuring the vital principle of the seed itself. Mr. Hope mentioned a practice common in some parts of Spain, of baking corn to a certain extent, by exposing it to a temperature of 150° or upwards, for the purpose of destroying an insect by which it was liable to be attacked. Dr. Richardson mentioned that the seeds sold in China for the European market, were previously boiled for the purpose of destroying their vitality, as the jealousy of that people made them anxious to prevent their exportation in a state fitted for germination. Upon sowing these seeds he had, nevertheless, observed that some few of them were still capable of vegetating.

Mulberry Trees.

The white Italian mulberry trees, which are the growth of seed sowed last spring, require to be defended from the severity of the coming winter by a covering of earth, straw, chaff, or horse manure. They may be buried several inches, and probably earth or manure will afford the surest protection. If they are thus carefully covered so as not to break down the tops, it is believed they will be as certain to survive, and be fit for transplanting in the spring, as they would if taken up this fall and put into a cellar. They should be covered before the approach of severe frost. One gentleman in this town cropped off the tops of his mulberry seedlings in the month of August, when they were about ten inches high; he also deprived them of nearly all their leaves at that time. Since he thus cut off the tops and the leaves, the main stem and branches have become firm and ligneous, although they have not increased in height—a second crop of leaves have come forward, so that they have lost their denuded appearance, and look remarkably tough and healthy, and will in all probability resist the effects of winter better than seedlings which have been allowed to grow without being cropped, or deprived of the first growth of leaves.

The surest way of securing the Chinese mulberry trees is either to put them into a cellar, or to dig them up carefully and turn the tops and branches down to the ground—they may then be covered with a layer of chaff and straw, and dirt to the depth of a foot thrown over the straw; the Chinese mulberry, being more tender than the white variety, should be taken care of at an earlier day. The branches of the Chinese mulberry trees, which are designed for slips next year, should not be cut off until the spring.

It has been ascertained by experiment that white mulberry trees one year old are more likely to live if transplanted at that age, than they are if they are allowed to remain in the nursery two or three years. The distance at which they should be set as standard trees is, 5 feet in the rows, and the rows 8 or 10 feet apart; the intermediate space between the rows may be improved in the cultivation of white beans or potatoes, so that there shall be no waste of ground.—*Portsmouth Journal.*

Preserving Trees through the Winter.

Though we have repeatedly given directions for preserving mulberry trees through the winter, yet we are almost daily in the reception of letters of inquiry on the subject. These letters are from persons who have either not seen our paper, or who have mistaken the mode of treatment we have recommended. We allude to the fact, however, not for the purpose of discouraging inquiries, but as an apology for devoting space to their recapitulation, to the exclusion of new, and to old readers, more interesting matter.

We therefore repeat that it is no permanent injury to the White Mulberry, to have the stalk destroyed by the frost of the first, and even the second year. No cultivator, therefore, need be discouraged, should he find in the spring, his trees killed down to the ground. The only preservation worth attempting is the root, and this may generally be effectually done by covering slightly with coarse horse manure. Some turn a light furrow upon the roots before hard frosts, and it has been found to answer a good purpose.

The best method of preserving the Chinese mulberry for propagation, is to take them up after the leaves have fallen off, and before the frosts are severe, and deposit them in the cellar; a little earth should be thrown upon the roots, and it would be well to sprinkle them moderately with water two or three times during the winter. They may also be preserved by burying them in the earth below the frost. When this method is chosen, a dry soil or sand bank will be found the best location. In the spring they should be taken up as soon as the state of the earth and weather will admit, and the process of propagation commenced. The best method is to bury the whole tree in a horizontal position to the depth of about two inches, and a shoot may be expected from every bud. Should the shoots attain the height of 18 inches, or two feet, by the first or middle of July, they may be laid down, and a second crop of shoots obtained. The increase, when treated in this manner, will be astonishing.—*Silk Culturist.*

Meteorological Table,

KEPT AT ROCHESTER, FOR NOVEMBER, 1836.

Days.	10 A. M. therm.	10 A. M. barom-eter.	10 A. M. winds.	10 A. M. sky.	10 P. M. therm.	10 P. M. barom-eter.	10 P. M. winds.	10 P. M. sky.
1	47	29,70	s w	fair	40	29,60	w	fair
2	46	29,55	s w	cloudy	40	29,60	w	do
3	31	29,65	n	do	32	29,65	n	cloudy
4	36	29,65	n w	do	30	29,60	s	fair
5	33	29,60	w	fair	29	29,60	e	do
6	42	29,65	n w	do	33	29,65	n w	do
7	44	29,65	n w	do	40	29,65	w	do
8	40	29,75	w	do*a*	40	29,80	w	do
9	50	29,85	s	do	45	29,85	s e	do
10	54	29,85	s	do	52	29,70	s	do
11	58	29,45	s	cloudy*b*	60	29,20	s	cloudy*c*
12	54	29,20	s w	do*b*	42	29,50	w	do
13	42	29,70	w	do	40	29,65	n e	fair
14	45	29,55	w	do	37	29,50	w	do
15	44	29,45	n w	do*c*	36	29,45	w	do
16	42	29,45	s w	do	32	29,50	w	cloudy
17	34	29,70	w	do*d*	36	29,85	w	fair
18	40	29,95	w	fair	30	30,00	n e	do
19	40	29,90	s	do	46	30,60	s	cloudy*b*
20	50	29,70	s	do	45	30,45	s	do*b*
21	52	29,25	w	cloudy	44	30,25	w	do*b*
22	38	29,40	w	do*e*	34	30,30	n w	do*d*
23	33	29,15	w	do*d*	32	29,00	w	do
24	30	29,10	n w	do	22	29,20	w	do*d*
25	22	29,30	w	do*f*	28	29,40	n w	do
26	26	29,40	w	do*f*	26	29,50	w	do*d*
27	32	29,65	w	fair	30	29,65	w	fair
28	32	29,70	s w	cloudy	30	29,50	s w	do
29	36	29,40	s w	do	34	29,35	w	cloudy
30	37	29,55	s w	do	34	29,10	w	do*g*

Mean.—Ther. 38.9—Bar. 29.51—Rain 2.8 inches.

a Smoky—*b* rainy—*c* temp. spring water 48°—*d* snows—*e* rainy all day—*f* snow 3 inches—*g* high wind.

100,000 White Italian Mulberry Trees,

OF one to four year's growth, for sale at Gasport, Niagara co. by J. TIMERMAN.

N. B. Orders promptly attended to, and trees carefully packed and forwarded to any part of the states.

Royalton Center, Nov. 15, 1836. nov 19-f1m

20,000 GENUINE Morus multicaulis, or Chinese Mulberrry, of one and two years' growth, by the dozen, hundred or thousand.

Also—30,000 White *Mulberry*, of one and two eyars' growth—for sale by ASA ROWE.

Fine Sheep.

THE subscriber offers for sale, at his residence in East Bloomfield, three hundred full blooded Merino Ewes, and five hundred fine Saxony Ewes, all young and in fine condition. Also, a lot of fine Merino and Saxony Bucks, pure blood. All have been selected by good judges, and with care as to fineness and heft of fleece.

LEONARD THOMPSON.

East Bloomfield, Ontario co. Dec. 1, 1836. f3t*

Lindley's Guide to the Orchard and Fruit GARDEN,

CONTAINING notes, explanatory and practical, with numerous additions on the propagation, culture, pruning and training of standard, open dwarf, and espalier fruit trees, adapted to the climate of the United States of America, with additions of the most valuable American Fruits, and other matters useful to the American horticulturist, by M. Floy, Gardener and Nurseryman, New York.

For sale by REYNOLDS & BATEHAM, at the Rochester Seed Store. nov 26

DURHAM CATTLE.

I WISH to sell my thorough bred improved Durham Short Horned Bull ROMEO, and Cow FANNY BOLIVAR, (with a Calf by her side.)

PEDIGREE OF ROMEO AND FANNY BOLIVAR.

ROMEO,

Red and white, calved in May, 1834; got by Cherry; dam Fanny Bolivar.

FANNY BOLIVAR.

Red and white, calved Dec. 16, 1829, bred by Thomas Williams of Chelsea, near Boston; got by the imported bull Bolivar; dam the imported cow Flora. Flora, calved in 1817, got by La Fourne's bull; dam a full blooded Durham Short Horned cow by Comet. Bolivar, "the sire of Fanny Bolivar," bred by Mr. Whitiker in England, imported by Col. Powell of Philadelphia.—See Herd Book, 2d vol. p. 24, No. 804.

CHERRY, "the sire of Romeo," was got by Lucifer out of Beauty, Lucifer got by Dishley, (a thorough bred Durham bull, imported in 1821 by Geo. Brintnell, Esq. of New Jersey,) out of the imported Durham cow Cherry, and got by Lancaster, who was sold in 1818 for 621 guineas. Cherry was got by a son of Comet, dam by Marsk; Marsk was got by Favorite, the sire of Comet; Lancaster was got by Wellington, and Wellington by Comet. Lancaster's dam, Moss Rose, out of Red Rose, by Favorite; dam by Favorite; gr. dam by Ben; g. gr. dam by Foljambet; g. g. gr. dam by Hubback. Beauty, the dam of Cherry, imported by De Wolf, was got by Samson out of a full bred Durham cow. Samson was got by Ossian, and Ossian by the celebrated old Comet.

I also have several half and three-fourth blood, which are fine. A. RAYNOLDS.

Rochester, Nov. 22, 1836. nov 26-f4t

25,000 Mulberry Trees.

WE have 25,000 White Italian Mulberry Trees 3 years old, which we will sell at $25 per 1000, or $3 per 100. If 5000 or upwards are taken, a deduction will be made.

REYNOLDS & BATEHAM,

sept 3 Rochester Seed Store.

Monroe Horticultural Garden and Nurseries, GREECE, MONROE CO. N. Y.

THIS establishment now comprises over 20 acres, covered compactly with Trees and Plants in the different stages of their growth.

The subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries, Grape Vines, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous Perennial Plants, Bulbous Roots, splendid Pæonies, Double Dahlias, &c. &c.

Also, a large collection of Green House Plants, of choice and select varieties, in good condition.

Orders respectfully solicited. Trees and Plants, when ordered, are carefully selected and faithfully packed, and if desired delivered on the canal one mile from the Nursery, or at Rochester.

Orders for Mr. Rowe's Nursery received by the publisher of this paper.

Catalogues will be sent to every applicant gratis, or may be had by calling at the office of the Genesee Farmer. oct 1 ASA ROWE.

Extract from Dr. Bachman's Lectures.

On the Habits of Insects.

A few of the evils, the result of ignorance on this subject, will be pointed out. There is an insect in this country, (the Saperda bivattata,) a kind of borer, which in its larvæ state is a white grub. It penetrates the stems of apple trees in the Northern and Middle States, and is very destructive. A kind Providence has provided a remedy for this evil in two species of our woodpeckers, (Picus villosus and propubescens,) these follow up the insects—dig them out of the trunk, and feed upon them. The farmers believing these birds, which they call sap suckers, to occasion the decay of their orchards by sucking the juices of the trees, cause them indiscriminately to be shot. These, if left unmolested, would have benefited, if not preserved, the trees. It cannot be denied that these birds also feed on the juices of the trees, but this has been known rather to promote than injure their fertility.

Not many years ago, a spiny caterpillar made its appearance on the Lombardy poplar trees of the Northern States. Its appearance was so uninviting that the ignorant became alarmed. Some thought that so ugly a worm might be poisonous—another reported that a dog had been struck and killed—presently it was published in some obscure country paper that a child had been stung and died. The insect was declared to be a scorpion—and now the work of destruction commenced. The axe was laid to those beautiful trees, (the only shade tree then cultivated in that part of the country,) they were dragged into the middle of the street, and burnt, and mothers barred their doors and kept in their children, until the trees, as well as the insects that fed on them, were consumed. I witnessed the effect of this vandal ignorance in many a beautiful village of New England and New York. A single Entomologist in that part of the country, (if his knowledge had been regarded,) would have saved the trees from destruction, and the people from an act of folly. He would have informed them that the insect they so much dreaded had been introduced from abroad along with the imported tree—that it was perfectly harmless—that it would soon form a chrysalis and then come forth a beautiful butterfly, the Papilio antiope of Linnæus, and the Vanissa antiope of modern Entomologists.

Another memorable circumstance arising from ignorance and error on this subject, I shall now proceed to notice. In 1776, the Hessian fly first made its appearance on Long Island, and commenced its depredations on the wheat fields. It gradually widened its circle, at first at the rate of from seven to twenty miles per year, until in 1783 it had spread itself over the states of Pennsylvania, New York, and New Jersey. Great alarm was excited in England, from an apprehension that this destructive insect might be imported in cargoes of wheat from this country. The subject occupied the attention of the Privy Council, and the Royal Society of England. Despatches were forwarded to France, Austria, Prussia and America, and expresses were sent to all the custom houses to have the cargoes of American wheat searched. The farmers of the United States were requested to describe the insect and its habits. A mass of documents, amounting to upwards of two hundred octavo pages, was collected. But the descriptions were so inaccurate, and the accounts so contradictory, that it was impossible to come to any decision, whether the insect could be imported in the wheat or not. In this state of ignorance and uncertainty, when all the wise politicians of the land were at fault, they thought proper to prohibit the importation of American grain, and ordered that which had arrived, to be seized and stored. Here then was a proscription of almost the only staple article which our country then produced. The celebrated Dr. Currie, of Liverpool, who had resided in this country, and had studied the insect, pointed out to the Committee of Investigation the errors into which they had fallen, and by the aid of Mr. Marshath, a celebrated Entomologist, he proved that the eggs of the insect were deposited on the stem, and not on the grain, and that the importation of a thousand cargoes could not introduce the insect. The British Government wisely reversed their orders and paid the damages. A little knowledge of Entomology would have dissipated these unnecesary alarms, and saved this expense. There is a small insect in England, (Aphis lanigera,) which has done much injury to the orchards of that country. It throws off a white cottony secretion from its skin. The proprietors of orchards at Evesham, seeing an insect of a very different kind, but with the same cottony appearance, on their poplars, cut them down to save their apple trees. It proved, when examined by Entomologists, a very different insect, which was not found out till their trees were destroyed. It would not be difficult to notice many other equally striking instances of the injurious effects of ignorance on the subject of Entomology.

I will notice a few instances of the superstitious notions which are entertained, and the undue alarms excited, in consequence of the want of knowledge of the habits of insects. There is a moth in Europe called the death's head moth, (the Acherontia atropos) from a marking on its back bearing some resemblance to a death's head —and whenever this moth appears it fills the common people with anxiety and alarm, and is regarded as the messenger of pestilence and death. In the works of Reaumur I find another interesting anecdote in point, which is too long to give in his own words, but which I shall abridge. The people of Aix in France, were filled with alarm and horror, by finding the whole country, as well as the clothes of men, as they were walking in the fields, covered with bloody drops, as if it had rained blood. There was in that place a celebrated philosopher, by the name of Peiresc, who paid attention to insects. He had kept the crysalis of this very insect in a box, it had now become a butterfly, and as it flew out of the box, it left behind it a red spot, which on comparing it with the bloody shower, he found identical, and thus he accounted for the miraculous rain, and dispelled the alarms which a natural phenomenon had caused.

We all have some knowledge of what is called the death watch. It is occasionally heard in our chambers by night. It resembles the ticking of a watch, which after having proceeded for a few moments, stops suddenly, and many a weak mother's heart sickens at the warning, that some one of her family will die before the end of the year. Her fears have been awakened without a cause. A small beetle, (Andobium,) has produced this ticking, by striking itself against the wood—it is a call to its companion, and this note of love in one, is mistaken for an omen of death in another. A little knowledge of the habits of this insect, will dispel these superstitious fears. Nor would it be foreign to our subject here to suggest, that a more familiar knowledge of the habits of insects would save our female friends from many of those frights occasioned by the sight of every strange insect, especially the harmless caterpillar and the too much abused spider.

One more instance of the effects of ignorance on the subject of Entomology must suffice on this head. Most of my readers will recollect that our newspapers, two summers ago, teemed with prognostics from Pennsylvania and the West, that the locusts were coming, which was ascertained from the myriads of their chrysalis found near the surface of the earth; and the farmers feared that this insect, which is supposed to make its appearance once in seventeen years, was, like the locust of the East, to sweep over the land, and devour every blade of grass and corn, and every green leaf. Some of the Charleston papers gave us the extracts also. The insects did appear, but they have passed off as they always do, without having done any injury. Now it would scarcely be believed, that this ignorant and superstitious notion should have been kept up and perpetuated in our land, and the tale repeated every seventeen years since the days of the Revolution. The fact is, the true locust does not exist in our land. It is a large species of grasshopper, (the Grillus migratorius,) and is only known on the eastern continent. It possesses a large mouth, extended jaws, and a voracious appetite, and is migratory in its habits —whereas the insect that here goes under this name, belongs to a different genus, and even to a different order—it is the Cicada, (the Cicada septemdecem,) from its being supposed to make its appearance once in seventeen years—it is entirely destitute of jaws—it lives altogether on suction from the juices of trees, which it receives through a long proboscis or tube, as the musquito does its nourishment; it is harmless and perfectly incapable of devouring a single leaf or blade of grass. I heard of a sermon preached by an estimable divine, in Pennsylvania, on the subject of the portentous evils that were about to befall the land, in consequence of the expected visitation of the locusts. A little knowledge of Entomology would have saved the people from unnecessary alarms, and himself from the reproach of having perpetuated error.

Another evil which a knowledge of Entomology is calculated to prevent, is the introduction of many noxious insects from abroad. Already we have suffered much from this source. The most troublesome insects of our country are not natives—they have been imported. They were brought here in our ships—in seeds, and in our imported plants, fruits and drugs. The cockroach, the flea, the common house fly, the meal worm and the bed bug, seem to follow the pilgrim in his wanderings all over the world, and the Scotch are said to bewail the introduction of the last loathsome insect as one of the evils of the union, as it was brought thither from England. But we have retaliated on the eastern continent with a vengeance; for in return for the noxious insects they sent us, we have transmitted thither many of ours. Our ships have carried there our pine borer, which pierces the rafters and wood work of the houses of London in every direction, and does incredible mischief. The pea bug of our country, (the Bruchus pisi,) is now found in some parts of England; the Aphis, so destructive to their orchards, was introduced in a cargo of foreign apples, and it is to be feared, that as our communication with Europe is every day becoming more easy and expeditious, we may reciprocally interchange many more destructive insects.

But, it may be asked, will a knowledge of Entomology enable us to guard against the accidental introduction of foreign and destructive insects? I answer, that as physicians have not, in all cases, with all their knowledge and skill, aided by our quarantine laws, been able to preserve the country against the introduction of the small pox, the dengue, the cholera, and other contagious diseases, (if the latter can be called such)—so it is probable that with all the knowledge of Entomologists, some insects might be introduced. But as the knowledge of the character of contagious diseases may preserve a country for a long time before they are introduced and tend materially to mitigate the evils when they arrive, so a knowledge of Entomology may for a long time preserve a country from the introduction of noxious insects, and when they are brought, suggest the means either of extirpating them at once, or of mitigating the evils which they are calculated to produce. Thus we are informed, that when the Swedish Naturalist, Kalm, who had been traveling in this country, returned with many of our seeds to Sweden, he discovered, on opening a package containing our common pea, a great number of our pea bugs, which, if he had brought on shore, would have immediately spread through the land. His knowledge of their habits induced him to throw the package into the sea, and thus Europe was saved for half a century from an evil which was finally introduced into England by some one else possessing less entomological knowledge.

METHOD OF PRESERVING CHEESE FROM WORMS AND MITES.—Grains of whole pepper, put into a vessel in which cheese is kept, will drive away the above mentioned insects.